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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,170	10/06/2003	David Joseph Kropaczek	24GA6001	2278
33727	7590	02/27/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			CRAIG, DWYN M	
		ART UNIT	PAPER NUMBER	2123

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/678,170	KROPACZEK ET AL.	
	Examiner	Art Unit	
	Dwin M. Craig	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 December 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 33 and 34 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7, 9-19 and 21-32 is/are rejected.
- 7) Claim(s) 1-7, 9-19 and 21-32 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## **DETAILED ACTION**

1. Claims 1-7, 9-19 and 21-32 have been presented for reconsideration based on Applicants' arguments and amended claim language. Claims 8 & 20 have been cancelled. Claims 33 & 34 have been withdrawn from consideration.

### *Response to Arguments*

2. Applicants' arguments presented in the 12/5/2005 responses have been fully considered. The Examiner's response is as follows,

2.1 Regarding the Applicants' response to the Examiner's objection to the Oath and Declaration. The Examiner thanks the Applicants' for clarifying that all of the inventors have in fact signed the Oath and Declaration and the Examiner withdraws all previous objections.

2.2 Regarding the Applicants' arguments regarding the 35 USC § 103(a) rejections of the claims. Applicants' persuasive arguments in combination with the amended claim language have overcome the previously applied prior art rejections. The 35 USC § 103(a) rejections of the claims are hereby withdrawn.

2.3 The Examiner notes that the preamble of Applicants' current claim language is not *tied* into the rest of Applicants' claimed limitations. The Examiner further notes that the "*Loading tools*" currently claimed can be interpreted as being any operator interface controls used by a computer software program to populate a "*loading map*" with "*fuel bundles*".

2.4 An updated search has revealed new art.

### ***Claim Preamble***

The Examiner asserts that “recovering nuclear fuel” is only disclosed in the preamble of the Applicants’ claims and it has been determined by the Examiner that it has no patentable weight. As recited in the MPEP, section 2111.02 [R-1] Effect of Preamble,

The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use “can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” Corning Glass Works, 868 F.2d at 1257, 9 USPQ2d at 1966. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also Rowe v. Dror, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) (“where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation”); Kropa v. Robie, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim); STX LLC. v. Brine, 211 F.3d 588, 591, 54 USPQ2d 1347, 1350 (Fed. Cir. 2000) (holding that the preamble phrase “which provides improved playing and handling characteristics” in a claim drawn to a head for a lacrosse stick was not a claim limitation). Compare In re Cruciferous Sprout Litig., 301 F.3d 1343, 1346-48, 64 USPQ2d 1202, 1204-05 (Fed. Cir. 2002).

The Examiner asserts that in Applicant’s claim language there is no limitation that the references cited by the examiner have to be in the, *recovering nuclear fuel*, art to be analogous.

### ***Claim Interpretation***

3. The broadest interpretation has been given to the claim language. The Examiner further notes that the “*Loading tools*” currently claimed can be interpreted as being any operator

interface controls, *like radio buttons, slide bars, etc...* used by a computer software program to populate a *virtual “loading map”* with *virtual “fuel bundles”*.

### ***Claim Objections***

4. Claims 1-7, 9-19 and 21-32 are objected to for the following reasons, taking independent claim 1 as an example, Applicants' are claiming, "*populating a loading map with fuel bundles*" the loading map is a *representation* of the actual loading pattern for the *fuel bundles*, the current claim language reads on loading actual *fuel bundles* into the *loading map*. The Applicants' specification discloses a Graphical User Interface with square numbered blocks representing *fuel bundles*; Applicants' current claim language claims a *loading map*, which is a virtual *representation* of the pattern of loaded *fuel bundles*, being loaded with representations/icons/virtual, *fuel bundles*. Amendment is required to change the current claim language to reflect that the *fuel bundles* are, *virtual* or *iconic*, fuel bundles being loaded in the *loading map*.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 9-19 and 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: Applicants' claim preamble sets forth the recovery

of nuclear fuel but the rest of Applicants' claims fail to provide any further steps in performing the recovery of nuclear fuel. Amendment is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 19 & 32 are rejected under 35 USC 102(b) as being anticipated by US Patent 4,988,476 hereafter referred to as *Sadaoka*.

6.1 As regards independent claims 1, 19 & 32 the *Sadaoka* reference discloses *providing a graphical user interface that allows a user to selectively populate a loading map with <a representation of> fuel bundles residing in at least one fuel pool, wherein the graphical user interface includes one or more loading tools* (Figure(s) 4, 7, 17, 19, 20, Col. 8 lines 66-68 can Col. 9 lines 1-16 and in particular “Subsequently, an operator specifies a display region through input device 1 in order to determine a position in the core which corresponds to the result to be displayed.” & Col. 10 lines 22-35 *et seq.*).

7. Claims 1-7, 9-19 and 21-32 are rejected under 35 USC § 102(b) for being anticipated by “MIROBURN-B2 TO RETRAN-3D Linking Code by Donald Hines and “CPW for SIMULATE-3 by Kevin O’Sullivan contained in the “*Update...*” news letter, hereafter referred to as the *O’Sullivan* reference.

7.1 As regards independent claims 1, 19 & 32 the *O'Sullivan* reference discloses *providing a graphical user interface that allows a user to selectively populate a loading map with <a representation of> fuel bundles residing in at least one fuel pool, wherein the graphical user interface includes one or more loading tools* (pages 1 & 2 and more specifically, “In both PWR and BWR versions, the core engineer design engineer can swap assembly locations in the core or “drag and drop” assemblies and their modeling data from the Spent Fuel Pool or Fresh Fuel locations to the core.”).

7.2 As regards dependent claim 2, *O'Sullivan* discloses a database (page 1, “The CPW is written in Visual Basic with an ODBC database connection to Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.”).

7.3 As regards dependent claim 3, *O'Sullivan* discloses, attributes (page 2 Figures).

7.4 As regards dependent claim 4, *O'Sullivan* discloses, K-Infinity (page 2 “Spent Fuel Pool” column label in the figure).

7.5 As regards dependent claims 5-7, *O'Sullivan* discloses, database management tools, (pages 1 & 2 “Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.”).

7.6 As regards dependent claims 9-11, *O'Sullivan* discloses, fresh fuel bundles (page 2 “Fresh Fuel Listing”).

7.7 As regards dependent claim 12, *O'Sullivan* discloses, fresh fuel bundles (page 2 “Fresh Fuel Listing”) and a GUI (Figures, page 2).

7.8 As regards dependent claim 13, *O'Sullivan* discloses, database management tools (pages 1 & 2 “Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.”) and fresh fuel bundles (page 2 “Fresh Fuel Listing”).

7.9 As regards dependent claim 14, *O'Sullivan* discloses, a list of fresh fuel bundle types (page 2 “Fresh Fuel Listing”).

7.10 As regards dependent claim 15, *O'Sullivan* discloses, database tools for sorting, (pages 1 & 2 “Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.”) and fresh fuel bundles (page 2 “Fresh Fuel Listing”).

7.11 As regards dependent claim 16, *O'Sullivan* discloses different GUI tools for loading fresh bundles (pages 1 & 2 and more specifically, “In both PWR and BWR versions, the core engineer design engineer can swap assembly locations in the core or “drag and drop” assemblies and their modeling data from the Spent Fuel Pool or Fresh Fuel locations to the core.” Page 2 “Fresh Fuel Listing”).

7.12 As regards dependent claims 17 & 18, *O'Sullivan* discloses reactor cores (page 2 “Fresh Fuel Locations to the core”) and fuel pools (“Spent Fuel Pool”).

7.13 As regards dependent claim 21, *O'Sullivan* discloses reactor cores (page 2 “Fresh Fuel Locations to the core”) and fuel pools (“Spent Fuel Pool”).

7.14 As regards dependent claim 22, *O'Sullivan* discloses attributes (page 2 Figures).

7.15 As regards dependent claim 23, *O'Sullivan* discloses k-infinity (page 2 “Spent Fuel Pool” column label in the figure).

7.16 As regards dependent claim 24, *O'Sullivan* discloses, database tools, (pages 1 & 2 “Access, SQL, Oracle or Sybase as well as Microsoft Excel and Word.”).

7.17 As regards dependent claims 25 & 26, *O'Sullivan* discloses, sorting, database tools, populating and loading maps (All of pages 1 & 2).

**7.18** As regards dependent claim 27, *O'Sullivan* discloses different types of fresh fuel (page 2 “Fresh Fuel Locations to the core”).

**7.19** As regards dependent claim 28, *O'Sullivan* discloses, selectively populating the loading map with fresh bundles (page 2, figures).

**7.20** As regards dependent claim 29, *O'Sullivan* discloses, types of fresh fuel bundles and using databases (pages 1 & 2).

**7.21** As regards dependent claim 30, *O'Sullivan* discloses reactor cores (page 2 “Fresh Fuel Locations to the core”) and fuel pools (“Spent Fuel Pool”).

**7.22** As regards dependent claim 31, *O'Sullivan* discloses more than one pool (page 2).

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, 3, 19, 21, 22, 24, 25 and 32 are rejected under 35 USC 103(a) as being unpatentable over 4,988,476 hereafter referred to as *Sadaoka* in view of US Patent 5,793,636 *Cooney et al.*

8.1 As regards independent claims 1, 19 and 32 and see section 6 of this Office Action.  
8.2 As regards dependent claims 2, 21 and 24 *Sadaoka* does not expressly disclose a fuel management database.

The *Cooney et al.* reference discloses a fuel management database (Col. 2 lines 23-31).

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to have combined the teachings of *Sadaoka* with the teachings of *Cooney et al.* because, by using an integrated database using networked computers to track the contents of nuclear fuel bundles, delays in transportation are reduced and access to the data becomes easier and more efficient (*Cooney et al.* Col. 2 lines 9-21).

8.3 As regards dependent claims 3, 22 and 25 *Sadaoka* does not expressly disclose a database with attributes.

The *Cooney et al.* reference discloses a database with attributes (4, 5A and 5B).

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to have combined the teachings of *Sadaoka* with the teachings of *Cooney et al.* because, by using an integrated database using networked computers to track the contents of nuclear fuel bundles, delays in transportation are reduced and access to the data becomes easier and more efficient (*Cooney et al.* Col. 2 lines 9-21).

### *Conclusion*

9. Claims 1-7, 9-19 and 21-32 are rejected.

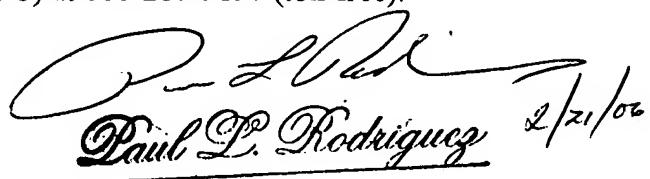
9.1 This Office Action is Non-Final.

9.2 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMC3987

  
Paul L. Rodriguez 2/21/06  
Primary Examiner  
Art Unit 2125